



**GYVENIMO BŪDO
MEDICINOS ASOCIACIJA**
Lėtinų ligų moksliniai tyrimai, prevencija ir gydymas



**FONDAZIONE
DIETA
MEDITERRANEA**



MEDITERRANEAN

DIET



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The Seven Countries Study (led by Ancel Keys; Greece, Italy, Spain, South Africa, Japan, Finland, and the USA)

The study examined the relationship between diet and heart diseases. Initially, the Mediterranean diet (MD) relied on olive oil as the primary source of dietary fats. There was less consumption of red meat but a substantial intake of seafood. The groups from Italy and Greece also consumed fewer dairy products but ate more fruits, vegetables, and grains. This indicates that these groups consumed a lower quantity of saturated fats, a higher amount of unsaturated fats, and almost no trans fats. Due to the increased consumption of fruits, vegetables, and grains, people ingested a lot of dietary fibers and phytochemicals, including antioxidants. This diet, based on vegetables and fruits and rich in unsaturated fats, was named the Mediterranean dietary pattern.

The Lyon Diet Heart Study (Michel de Lorgeril) research confirmed that the MD has a protective effect on the risk of myocardial infarction and other heart and vascular diseases.

In 1995, the **Oldways** Preservation Trust, in collaboration with the Willett team from the Harvard School of Public Health and the WHO, released the Mediterranean Diet Pyramid for the first time.

The Fundacion Dieta Mediterranea (FDM, Mediterranean Diet Foundation) and the **Fundazione Dieta Mediterranea** (Italy) distribute information obtained from dietary studies and promote dietary and lifestyle habits.

HISTORY

In 2013, UNESCO recognized the Mediterranean Diet (MD) as a lifestyle and way of eating.

The PREDIMED study team discovered that participants adhering to the MD, supplemented with olive oil or nuts, significantly reduced their risk of developing heart and vascular diseases. Secondary data from this study also showed a significant reduction in the risk of developing type 2 diabetes.

The PREDIMED PLUS study was initiated in 2013 to investigate MD impact to the risk of cardiovascular diseases or metabolic syndrome on overweight or obese Spanish residents with,

The Mediterranean diet plan represents a valuable cultural heritage, signifying much more than simple, nutritious dietary guidelines. It encompasses typical products, recipes, cooking methods, traditions, and a comprehensive range of human activities. This was recognized by UNESCO when it included this dietary and lifestyle plan in the Intangible Cultural Heritage list.



HOW DOES DIET WORK?

The Mediterranean Diet (MD) is not a strict dietary program but it embodies general dietary principles that reflect a lifestyle model.

Both the Oldways and Fundacion pyramids illustrate that the diet encompasses all food groups, although the proportions are not typical of many European countries.

Given the relatively flexible guidelines of the MD, the involvement of a dietitian can be beneficial for patients transitioning from a typical Western diet to MD habits.

The MD is based on plant-derived foods. Patients should eat vegetables, fruits, and grains with every meal. The primary source of protein comes from beans, legumes, as well as fish and other seafood consumed several times a day, accompanied by small portions of low-fat dairy products and eggs. Poultry and other meat are included less frequently, sweets are even less common. Alcohol may be consumed in moderation, taking into account cultural and social norms. According to the FDM, the focus should be on minimally processed foods, traditionally prepared, without preservatives. Frozen fruits and vegetables, nutritionally similar or even equivalent to fresh ones, can be used when fresh products are not seasonally available or if they are not accessible due to the patient's budget.

HOW DOES DIET WORK?

FDM emphasizes the importance of avoiding packaged or processed foods. This has implications for health and weight loss. Packaged, processed foods often contain high amounts of sodium chloride, sugar, and trans fats, which increase the risk of hypertension, heart and vascular diseases, diabetes, and can lead to weight gain. These foods are typically high in calories but not nutritious.

Water and wine are included in the Mediterranean Diet (MD), but juices, soft drinks, sweetened coffees, and teas are discouraged. Artificial sweeteners (aspartame, saccharin, sucrose, acesulfame, even stevia) are also not recommended for consumption.

Fast food (including frozen meals, canned products, commercially produced baked goods) is not part of the MD. The emphasis on fresh, minimally processed foods signifies a shift from the typical American or

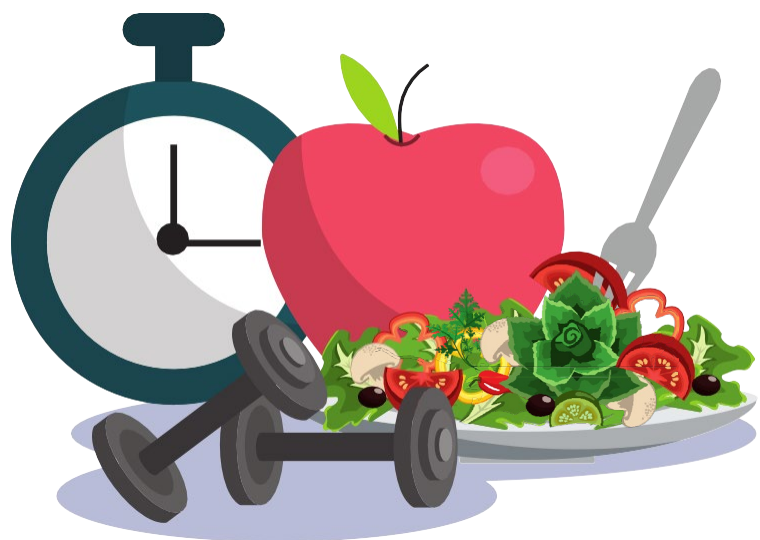
Western diet and opposes the usual diet high in salt and added sugars. This means transitioning to increased consumption of dietary fibers and moving from unhealthy saturated fats to heart-healthy unsaturated fats.



HOW DOES DIET WORK?

It is crucial to emphasize that the MD is NOT A DIET, but a **LIFESTYLE**. It's not only about food. The social aspects of the MD are inseparable from its culinary components. Dining with friends and family is deeply rooted in Mediterranean culture (Ancel Keys). The habit of eating regularly with loved ones means that food consumption is **closely linked to conversation and interpersonal relationships**, i.e., promoting mindful eating: eating slower, and the feeling of fullness comes gradually. A key benefit of the MD is frequent and mindful interaction with others. To achieve this aspect of the MD diet, fast eating must be abandoned. This means taking the time to prepare and cook food and enjoying meals with friends and family, thus possibly requiring planning ahead and dedicating more time to the eating schedule.

Key elements of the MD include **COMMUNICATION AND PHYSICAL ACTIVITY**. It is vital to find ways to ensure that regular and frequent physical activity becomes a habit.



SCIENTIFIC BASIS OF MEDITERRANEAN DIET

Interest in the Mediterranean Diet (MD) began in the 1970s when it was observed that fewer people died from coronary heart disease in Mediterranean countries, such as Greece and Italy, compared to the USA and Northern Europe. Subsequent studies have found that the Mediterranean Diet is associated with lower risk factors for heart and vascular diseases.

The Mediterranean Diet is one of the healthy eating plans recommended by dietitians to promote health and prevent chronic diseases.

The World Health Organization also recognizes it as a healthy and sustainable dietary pattern and as an intangible cultural heritage (UNESCO, 2013).

Who is it recommended for?

The Mediterranean Diet is suitable for patients with cardiovascular diseases, those with hyperlipidemia, patients with type 2 diabetes, oncological conditions, and cognitive function disorders.

SCIENTIFIC BASIS OF MEDITERRANEAN DIET

What is the Definition of Mediterranean Diet?

The Mediterranean Diet is a lifestyle and dietary pattern based on the traditional cuisines of countries bordering the Mediterranean Sea. While there is no single definition of the MD, it is typically rich in vegetables, fruits, whole grains, beans, nuts and seeds, and olive oil. The MD is grounded in plant-based foods.

The primary components of the Mediterranean Diet include:

- Olive oil;
- Daily consumption of vegetables, fruits, whole grains, and healthy fats;
- Weekly intake of fish, poultry, beans, and eggs;
- Moderate portions of dairy products;
- Limited consumption of red meat;



Other important elements of the Mediterranean Diet are communal eating with family and friends, a glass of red wine, and the necessity of physical activity.

MEDITERRANEAN DIET AND LIFESTYLE RULES

1

USE OLIVE OIL - IT IS THE PRIMARY SOURCE OF FATS.

The Mediterranean cuisine is rich in vitamin E, beta carotene, and plant-based fats (monounsaturated), which help prevent heart and vascular diseases. This is the treasure of the Mediterranean region's diet and the centuries-old culinary traditions of the area, giving dishes a unique flavor and aroma.



2

EAT FRUITS, VEGETABLES, LEGUMES, AND NUTS.

Fruits and vegetables are the primary sources of vitamins, minerals, and fiber in our diet. They also provide us with a significant amount of water. It is very important to consume **5 servings of fruits and vegetables daily**. Due to their high content of antioxidants and fiber, they can help prevent various heart and vascular diseases and certain forms of cancer.



MEDITERRANEAN DIET AND LIFESTYLE RULES

3

WHOLE GRAIN PRODUCTS SHOULD BE CONSUMED EVERY DAY.

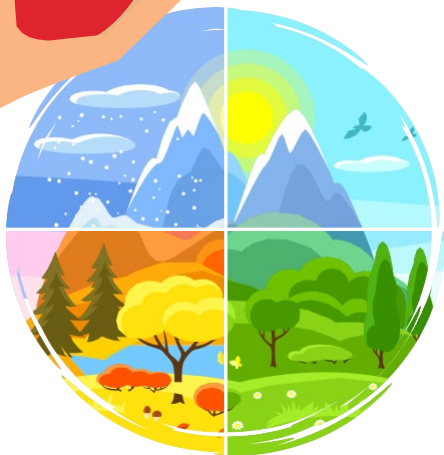
Daily consumption of rice and whole grain products is very important. These products are high in carbohydrates, which provide the energy needed for our daily activities. We should not forget that whole grain products offer us more fiber, vitamins, and minerals.



4

FOOD PRODUCTS THAT ARE MINIMALLY PROCESSED, FRESH, AND LOCALLY SOURCED ARE THE BEST.

It is important to take advantage of seasonal products when they are of the highest quality: in terms of nutrients, aroma, and flavor.



MEDITERRANEAN DIET AND LIFESTYLE RULES

5

CONSUME DAIRY PRODUCTS ONCE A DAY, PRIMARILY YOGURT AND CHEESE.

Dairy products are an excellent source of proteins, vitamins and minerals (such as calcium, phosphorus, etc.). Fermented dairy products are associated with numerous health benefits, as they contain live microorganisms that can improve the balance of our gut microbiota.



6

RED MEAT SHOULD ONLY FORM PART OF THE MEAL.

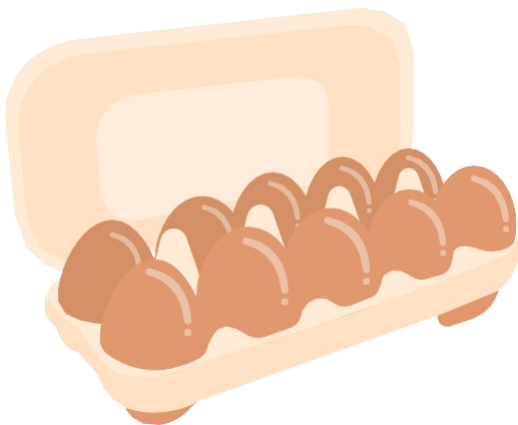
Processed meat should be consumed in small quantities. Meat contains proteins, iron, and animal fats. Excessive consumption of animal fats is not healthy. Therefore, it is recommended to use small amounts of meat, lean meat, as a component of dishes prepared from grains and vegetables.



MEDITERRANEAN DIET AND LIFESTYLE RULES

7 EAT FISH AND EGGS.

It is recommended to consume fish at least once or twice a week, as they are rich in polyunsaturated fatty acids, which protect against heart diseases.



Eggs are rich in high-quality proteins, fats, vitamins, and minerals. Eating eggs three or four times a week is a good alternative to fish and meat.

MEDITERRANEAN DIET AND LIFESTYLE RULES

8

FRESH FRUITS SHOULD BE YOUR DAILY DESSERT, WHILE SWEETS, PASTRIES, AND DAIRY DESSERTS ARE ALLOWED ONLY DURING CELEBRATIONS.

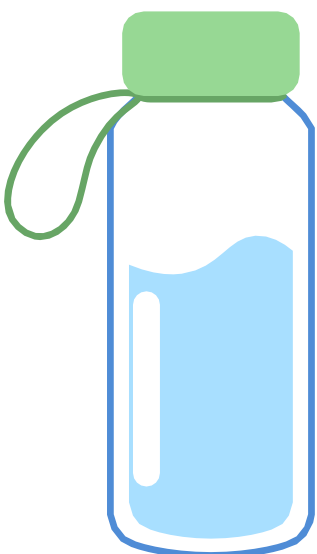
Fresh fruits should become your usual dessert choice, replacing sweets and pastries. Fruits are highly nutritious and add color and flavor to our diet. They also serve as a healthy snack alternative.



9

WATER - THE MOST IMPORTANT DRINK.

In the Mediterranean Diet, emphasis is placed on the consumption of water and wine. Wine should be consumed in moderation, with meals. Wine is a traditional part of the Mediterranean diet, which can be beneficial to health, but it must be consumed in moderation, only as part of a balanced diet.



MEDITERRANEAN DIET AND LIFESTYLE RULES

10

BE PHYSICALLY ACTIVE EVERY DAY, IT'S AS IMPORTANT HEALTHY EATING.

To maintain a healthy physical condition, it's necessary to exercise every day. It's important to choose a form of physical activity and intensity that suits you personally.



KEY FOOD PRODUCTS:

- **fresh fruits and vegetables**

spinach, cabbages, non-starchy vegetables, for example: eggplant, cauliflower, artichokes, tomatoes, and fennel

- **olive oil**

- **seeds and nuts**

almonds and sesame seeds, used in making tahini

- **legumes and beans**

especially lentils and chickpeas, used in making hummus

- **herbs and spices**

thyme, rosemary, and parsley

- **whole grain products**

- **eat wild fish and seafood at least twice a week**

mackerel, herring, sardines, albacore tuna, salmon, and lake trout

- **organically raised domestic poultry, free-range chicken eggs, cheese, goat milk, probiotic-rich kefir or yogurt consumed in moderation**

- **red meat, consumed on special occasions or about once a week**

- **plenty of fresh water**

- **a glass of red wine per day**

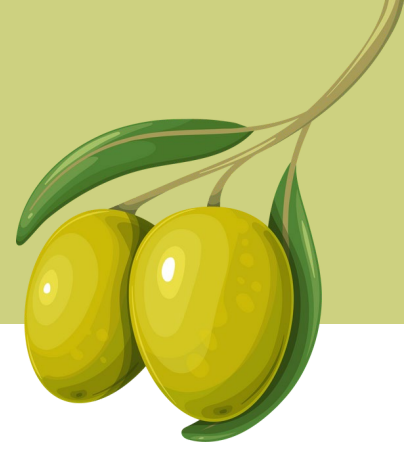


KEY FOOD PRODUCTS:

Tips for beginners:

- ✔ Eat more fruits and vegetables. Aim for 7-10 servings of fruits and vegetables per day.
- ✔ Choose whole grain products - whole grain bread, pasta.
- ✔ Consume healthy fats - olive oil. Instead of butter or margarine on bread, try dipping it in aromatic olive oil.
- ✔ Eat more seafood. Eat fish twice a week. Tuna, salmon, trout, mackerel, and herring are healthy choices. Avoid frying fish in fat.
- ✔ Reduce red meat consumption. Replace meat with fish, poultry, or beans. If you eat meat, make sure it's lean, and the portion is not large.
- ✔ Consume dairy products in moderation, eat low-fat Greek or plain yogurt, various cheeses in small amounts.
- ✔ Use spices. Herbs and spices enhance flavor and reduce the need for salt.

ADVANTAGES



A significant **advantage** of this diet is its excellent taste. Fats, primarily olive oil and nuts, help to carry fat-soluble substances and provide satiety. Beyond fats, the Mediterranean Diet utilizes herbs, garlic, and onions, which give the food an intense flavor. Fruits and vegetables are seasonal, locally grown, and harvested when ripe.

The high amount of fruits and vegetables, attention to other plant-based foods such as beans, legumes, and whole grain products, results in a high consumption of dietary fibers. This promotes digestive tract regulation, reduces cholesterol levels, and decreases the risk of heart and vascular diseases.

A fundamental focus of the MD is on unsaturated fats - monounsaturated fats from olive oil and polyunsaturated fats from nuts, seeds, and fish. It has been proven that monounsaturated fats lower LDL (low-density lipoprotein) cholesterol without affecting HDL (high-density lipoprotein) cholesterol, while omega-3 polyunsaturated fatty acids have the effect of reducing LDL cholesterol and increasing HDL cholesterol.

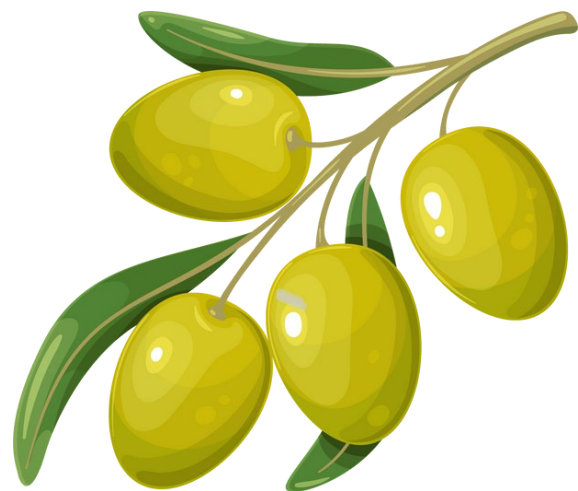
This dietary plan is a lifestyle that can contribute to the improvement of long-term health outcomes and regulation of body weight.

DISADVANTAGES

Certain important components of the MD can be expensive to purchase in some parts of the world. Olive oil, especially the highest quality extra virgin olive oil, is often more expensive than other vegetable oils. Nuts and seeds can also be pricey. For people who wish to consume only fresh products, the abundant use of fruits and vegetables for the entire household, especially during the winter months, can be costly. Fresh, sustainably caught fish can also be expensive.

Portion control is an important aspect, as the MD involves regular consumption of calorie-dense foods such as olive oil, nuts, and legumes.

It's important to note that the MD does not specifically address cooking methods, only recommending the use of olive oil as the primary source of fats.



OLIVE OIL - MAIN SOURCE OF FAT

Healthy fats are a fundamental part of the Mediterranean Diet. They are consumed in place of less healthy fats, such as saturated and trans fats, which contribute to heart diseases. Fish play a crucial role in the Mediterranean diet. Fish, such as mackerel, herring, sardines, albacore tuna, salmon, and lake trout, are rich in omega-3 fatty acids - a type of polyunsaturated fat that can reduce inflammation in the body. Omega-3 fatty acids also help lower triglyceride levels, reduce blood clotting, and decrease the risk of stroke and heart insufficiency.

How and when to use olive oil?

Drizzle it over already prepared dishes:

- For porridge (oats, buckwheat, barley, pearl barley, etc.);
- Soup;
- Stew;
- Meat;
- Fish;
- Vegetable dishes;
- Fresh vegetable salads;
- Pasta;
- Rice;
- Ice cream;
- Snacks.

OLIVE OIL - MAIN SOURCE OF FAT

How and when to use olive oil?

During the cooking process:

- For cakes and desserts (replace butter with oil);
- In fruit or vegetable smoothies/juices;
- In homemade ice cream (whipping it in can provide an exceptionally soft texture);
- For meat marinades or sauces;
- On grilled meat (rub it in before cooking);
- In mashed potatoes (replace the butter used with oil);
- For pasta sauces;
- For baking and cooking.



OLIVE OIL - MAIN SOURCE OF FAT

A key feature of the Mediterranean diet plan is the use of olive oil as the primary source of fats. The health benefits of olive oil are particularly associated with the consumption of the highest quality extra virgin olive oil, its high nutritional quality, and numerous positive effects on health. The Mediterranean diet has both direct (e.g., monounsaturated fatty acids, tocopherols, polyphenols) and indirect (e.g., low in saturated fats, well-balanced linoleic and alpha-linolenic acid) effects on the immune system and inflammatory processes in the body. Olive oil has a significant positive impact on immune-mediated and inflammatory diseases, such as cardiovascular diseases (CVD), obesity, type 2 diabetes, cancer, asthma, and allergies.

The immune system develops with age, through antigen stimulation and proper nutrition. Adequate and balanced dietary habits, nutrients play a key role in maintaining and optimally functioning immune cells. They help preserve good health, gut microbiota, and the immune system.



OLIVE OIL - MAIN SOURCE OF FAT

Essential fatty acids are crucial regulators of the immune system:

- Linoleic acid, also known as an omega-6 fatty acid. Linoleic acid is broken down in the body into arachidonic acid, which is essential for the production of other biological compounds. These compounds perform various bodily functions, such as blood clotting and blood pressure regulation.
- Alpha-linolenic acid (α -linolenic acid) is known as an omega-3 fatty acid. Two important compounds produced in the body from alpha-linolenic acid are eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). These acids are necessary for supporting many bodily functions. Research indicates that EPA and DHA reduce inflammatory responses in the body, blood clotting, and triglyceride levels in the blood. In this way, these two acids reduce the risk of heart attack.

Olive oil as the primary source of fats is a traditional symbol of the Mediterranean diet plan. The health benefits of olive oil consumption are particularly associated with the highest quality extra virgin olive oil (EVOO). It is considered a key bioactive food due to its high nutritional quality. The nutritional value of olive oil can vary greatly depending on the olive variety, climate conditions, and oil production process.

OLIVE OIL – MAIN SOURCE OF FAT

Nutritional components present in extra virgin olive oil.

Energy	884 kcal/3699 kJ
Carbohydrates, fiber	0-0.2 g
Protein	0
Fat	100 g
• saturated FA	• 14 g
• mono-unsaturated FA	• 73 g (up to 73% of RDA)
• poly-unsaturated FA	• 13 g
Cholesterol	0
Vitamin A	0-157 µg
Vitamin E	0-37 mg (up to 72-96% RDA)
Vitamin K	55-60 µg (up to 50-75% RDA)
Sodium	1-2 mg
Potassium	0-1 mg
Calcium	0-1 mg
Magnesium	0-1 mg
Phosphor	0-2 mg
Iron	100-560 µg (up to 7% RDA)
Zinc	10-60 µg
Copper	0-70 µg
Chlorophyll	0.5-1.6 mg

(Poly)phenols and phenolic compounds ($n = 36$), e.g.,

OLIVE OIL - MAIN SOURCE OF FAT

Polyphenols are common components of plant-based foods and the main antioxidants in our diet. Fruits, vegetables, olives, whole grains, legumes, as well as tea, coffee, and olive oil are particularly rich in polyphenols.

Extra virgin olive oil, pure and of the highest quality, is a symbol of the Mediterranean diet. Following all traditional Mediterranean diet practices, extra virgin olive oil is obtained directly from olives through mechanical extraction. It is a natural juice that serves as the primary source of fats in this diet. Olive oil consists of a glycerol fraction (90-99%) and a non-glycerol fraction (0.4-5%). One of the key features of olive oil is its high content of monounsaturated fats and low concentration of saturated fats. The main monounsaturated fats, oleic acids, make up 70-80% of the fatty acids in olive oil and are responsible for many of its health-enhancing properties, including reducing the risk of cardiovascular diseases, neurodegenerative diseases, and cancer.



OLIVE OIL - MAIN SOURCE OF FAT

Benefits of extra virgin olive oil

- Among the beneficial properties of extra virgin olive oil is its antioxidant effect, reducing oxidative stress, which is involved in the pathogenesis of several atherosclerosis risk factors, including hypertension, diabetes, and metabolic syndrome. Scientific studies have revealed that a decrease in oxidative stress markers in the body significantly reduces LDL (low-density lipoproteins), triglycerides, and the visceral fat index.
- Scientific evidence indicates that the consumption of extra virgin olive oil is associated with positive effects on cardiovascular diseases: it has the ability to prevent inflammatory processes related to chronic degenerative diseases, such as heart, vascular, and brain diseases, and cancer.
- Regular consumption of extra virgin olive oil improves blood cholesterol concentration: HDL increases, while triglyceride levels and LDL decrease.

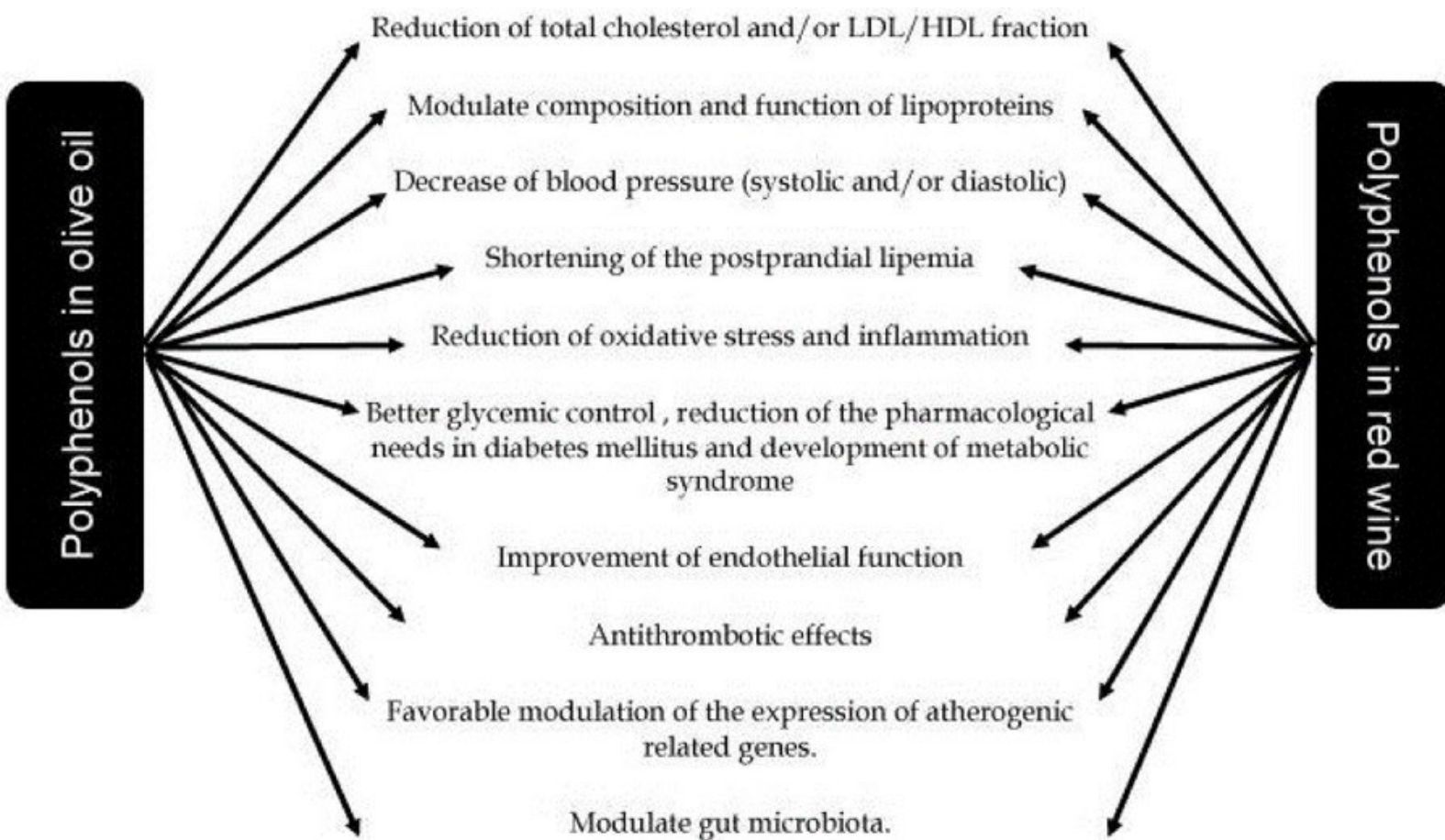


OLIVE OIL - MAIN SOURCE OF FAT

Benefits of extra virgin olive oil

- Following a Mediterranean diet enriched with extra virgin olive oil improves the postprandial glycemic index for those with impaired fasting glucose levels. The positive effects of extra virgin olive oil are related to the regulation of incretins. Extra virgin olive oil reduces the activity of dipeptidyl peptidase-4, thereby increasing the concentration of glucagon-like peptide-1, which regulates postprandial glycemia by enhancing insulin secretion.
- Scientific research has revealed that regular and adequate consumption of extra virgin olive oil increases protective effects against digestive tract, skin, and particularly breast cancer.
- The consumption of extra virgin olive oil contributes to weight regulation.
- Due to the high content of polyphenols in extra virgin olive oil, its consumption is associated with a reduction in systolic and diastolic blood pressure.
- The consumption of extra virgin olive oil positively affects gut microbiota, thus improving insulin sensitivity.

OLIVE OIL - MAIN SOURCE OF FAT



OLIVE OIL - MAIN SOURCE OF FAT

How to choose suitable olive oil?

- Must be extra virgin olive oil
- Good, high-quality olive oil is sold in dark, black glass bottles because there are three main enemies of oil - time, light, and heat. Sunlight penetrates through a clear glass bottle and can spoil the product; the oil oxidizes.
- In extra virgin olive oil, the acidity must not exceed 0.8%. In particularly high-quality olive oil, the acidity can be incredibly low, just 0.1%. Very low acidity olive oil is that which is obtained from healthy olives, correctly managed at all stages of production from the olive groves to the final product.
- Look for the phrase "cold-pressed" on the label.
- The label should indicate the olive's protected geographical/origin indication.

OLIVE OIL - MAIN SOURCE OF FAT

How to choose suitable olive oil?

- The taste of high-quality olive oil should be mildly bitter. Bitterness indicates that the olive oil is rich in antioxidants. Pour a little bit of oil into your mouth, wetting the taste receptors. It's very important, before swallowing, to draw in some air through your teeth to better reveal the aftertaste of the oil. If the oil is of good quality, you will soon notice the bitterness. Once swallowed, you will quickly feel the sharpness and piquancy of the oil. All these are signs of quality oil, indicating the presence of antioxidants, which means the oil was made from green, unripe olives. The oil should flow down the throat like water - leaving no oily trace in the mouth. If there is an oily residue, something is wrong with the oil. Most likely, it was pressed from overripe olives and had been heated. Heating the oil not only eliminates its aromatic properties but also vitamins and antioxidants.
- Good and high-quality olive oil has a pleasant scent of freshness. To taste the oil, pour it into a small glass. Cover the glass with one hand to concentrate all the aromas inside and warm it with the other hand. The ideal tasting temperature is 28 degrees Celsius. After warming, uncover it and try to understand what you smell. Freshly cut grass? Tomatoes? Good, pure olive oil without any additives should pleasantly smell fresh.

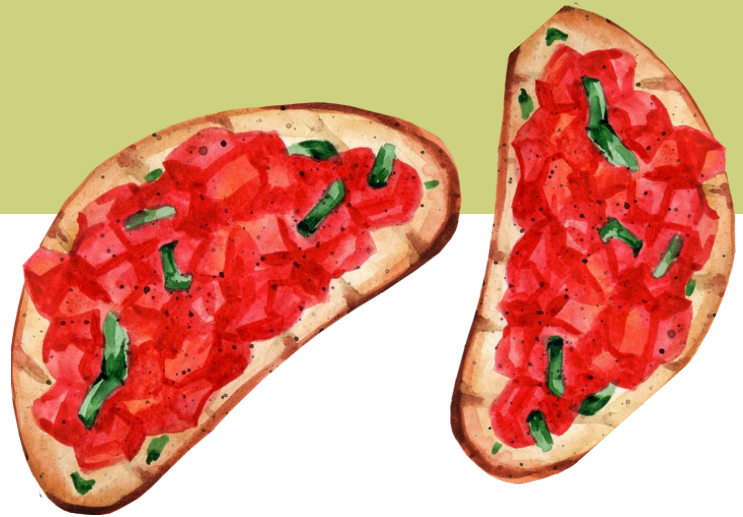
LITHUANIAN EQUIVALENT - FLAXSEED OIL

Flax has been considered a sacred plant since ancient times, and Hippocrates called it the plant for all diseases. Flaxseeds have long been known for their health-protective and healing properties, their nutritional qualities and substances beneficial to the body. It consists of 26 percent protein, 22 percent carbohydrates, 40 percent fats, and 8 percent fiber. The proteins in flaxseeds contain all the essential amino acids that our bodies requires.

The oil pressed from flaxseeds has a unique composition. It contains up to 50 percent Omega-3 (alpha-linolenic acid) and about 20 percent Omega-6 (linoleic acid) polyunsaturated fatty acids, about 20 percent oleic (monounsaturated) fatty acids, and only about 10 percent saturated fatty acids. Alpha-linolenic and linoleic acids are essential food components that cannot be synthesized by the human body but are necessary for normal lipid metabolism. All these beneficial fats are highly advantageous for brain function, and good brain function positively affects the entire body's operation.

Given that people in Lithuania consume very little marine fish products, it is crucial to supplement the body with omega-3 fats, which are abundantly found in flaxseeds. Omega-3 fatty acids positively affect blood concentration, lower cholesterol levels, and are very important in protecting against heart diseases, atherosclerosis, and rheumatoid arthritis.

RECIPES



Bruschetta with Tomatoes

Ingredients:

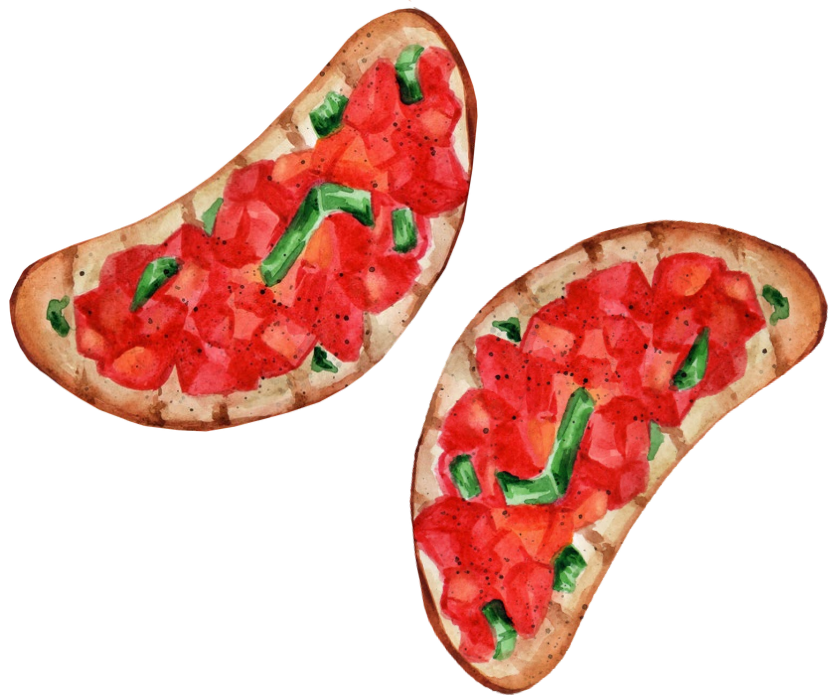
- Italian ciabatta bread or any other bread of choice, 1-2 days old but not too hard
- 6-8 medium-sized ripe tomatoes, but not overripe
- 4 tablespoons of the purest olive oil you can afford
- 2-3 cloves of garlic
- 2 tablespoons of balsamic vinegar
- A handful of basil leaves (dill can be substituted)
- Salt to taste

How to prepare?

1. Place the tomatoes in a bowl, pour boiling water over them and leave for a minute. Then remove, make a small cut in the skins, and peel them off.
2. Cut the tomatoes in half and remove the seeds. Dice the tomato flesh into medium-sized cubes.
3. Finely chop one clove of garlic into small, elegant squares and add it to the tomatoes.
4. Combine the tomatoes with two tablespoons of olive oil and a tablespoon of balsamic vinegar. Do not salt them yet.

RECIPES

5. Slice the bread into approximately 1.5 cm thick slices. Lightly brush each slice with olive oil using a pastry brush. Toast in the oven or a toaster until slightly hardened.
6. Rub the toasted bread slices with a clove of garlic.
7. Now salt the tomatoes to taste.
8. Place the tomato mixture on the bread, sprinkle with basil leaves (tear them if they are large). Finish by drizzling with olive oil and balsamic vinegar.



FRUITS AND VEGETABLES

Fruits and vegetables belong to the same group in the food pyramid, but it's recommended to consume more vegetables than fruits. Adults should aim for 3-5 servings of vegetables and 2-4 servings of fruits per day. Fruits and vegetables provide the body with vitamins, fibrous materials, alkalinizing minerals, and carbohydrates. They are highly beneficial because they improve gastric juice secretion, normalize gut microbiota, help maintain a favorable acidic environment in the intestine, and balance the acid-alkaline levels in the body, preventing constipation.

Fruits, vegetables, and berries are rich in **various fibrous materials** - protopectins (insoluble fibers) and pectins (soluble fibers). Pectins are important because they bind heavy metals ingested with food in the intestines.

Fruits, berries, and vegetables are rich in glucose, fructose, and sucrose.

Fruits, berries, and vegetables are a **rich source of various minerals**. They contain high amounts of potassium, calcium, phosphorus, magnesium, sulfur, and iron. Potassium and iron are particularly important minerals. Potatoes, dried fruits, apricots, peaches, grapes, bananas, and cauliflower are high in potassium, while apricots, pears, plums, apples, oranges, cabbages, and carrots are good sources of iron.

FRUITS AND VEGETABLES

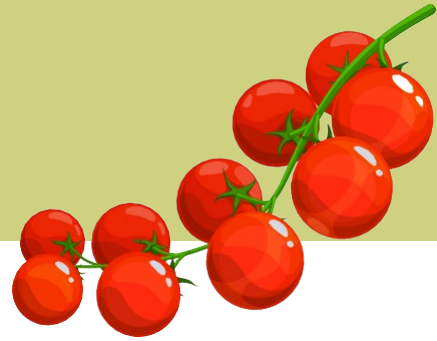
Fruits, berries, and vegetables are rich in vitamins, especially **vitamin C**, found abundantly in citrus fruits.

The colors in fruits, vegetables, and berries come from plant pigments (coloring substances): chlorophylls, carotenoids, and flavonoids.

The nutritional and biological value of natural fruits, berries, and vegetables is higher than that of dried counterparts. In Lithuania, people consume more fruits than vegetables. For example, fresh tomatoes are rich in vitamins and minerals, while cooked tomatoes activate lycopene - a very powerful antioxidant that protects the body from the harmful effects of free radicals.



RECIPES



ROASTED TOMATO AND MOZZARELLA SALAD

Ingredients:

- 75ml olive oil
- 3-4 chili peppers (milder variety), or to taste, sliced
- 8 garlic cloves, thinly sliced
- 4cm fresh ginger root, julienned
- 1kg tomatoes, sliced longitudinally about 1cm thick
- 1.5 teaspoons of lightly toasted black mustard seeds
- Salt and pepper, to taste
- Mozzarella cheese, sliced or torn into pieces
- Fresh mint leaves

How to prepare?

1. Turn on the broil setting of your oven to its highest temperature. Line a large baking sheet (or two if necessary) with parchment paper.
2. Pour olive oil into a small pot and heat it up. Add the chili, garlic, and ginger, and sauté everything over medium heat for about 5-8 minutes, stirring occasionally until the garlic turns golden and the spices become fragrant. Remove the sautéed spices with a slotted spoon and set aside (don't discard them!).

RECIPES

3. Arrange the tomato slices in a single layer on the prepared baking sheet, sprinkle with 1.5 teaspoons of salt and lots of black pepper. Place the tray close to the broil element and roast for about 10-12 minutes, until the tomatoes start to darken. Remove from the oven, drizzle with the prepared spicy oil, sprinkle with the reserved sautéed spices, and let it rest for at least 10 minutes to cool down and marinate the flavors (you can leave it longer until ready to serve).
4. Place the roasted tomatoes on a large plate, allowing them to slightly overlap. Add the torn (or sliced) mozzarella. Sprinkle with toasted black mustard seeds, drizzle with any remaining liquid from the baking tray, and garnish with mint leaves.



LEGUMINOUS PLANTS

Legumes are not only an excellent source of plant-based proteins but also a rich collection of fibers, minerals, and vitamins. Legumes contain significantly more protein than grain crops, with soybeans being particularly high in protein. Legumes are valuable because they contain essential amino acids - the composition of soy and animal proteins is very similar. The carbohydrate content in legumes varies. Legumes are rich in B vitamins and minerals, especially potassium. Commonly used legumes for food include beans, broad beans, peas, soybeans, and lentils.

How to Properly Prepare Legumes?

- Inspect the legumes, sort them out;
- Rinse well under cold running water;
- Place them in a pot, cover with acidulated water (lemon juice or apple cider vinegar). For every cup of legumes, add two teaspoons of lemon juice or apple cider vinegar. Soak for 8-12 hours. Drain the soaking water and rinse;
- Cover the legumes with clean water, enough to submerge them, bring to a boil, and simmer on low heat. Once cooked, season with salt, and allow them to sit in the salty water for 10 - 15 minutes. Salt extends the cooking time of legumes, so it's best to salt them just before finishing cooking.

RECIPES



SPAGHETTI CARBONARA

Ingredients:

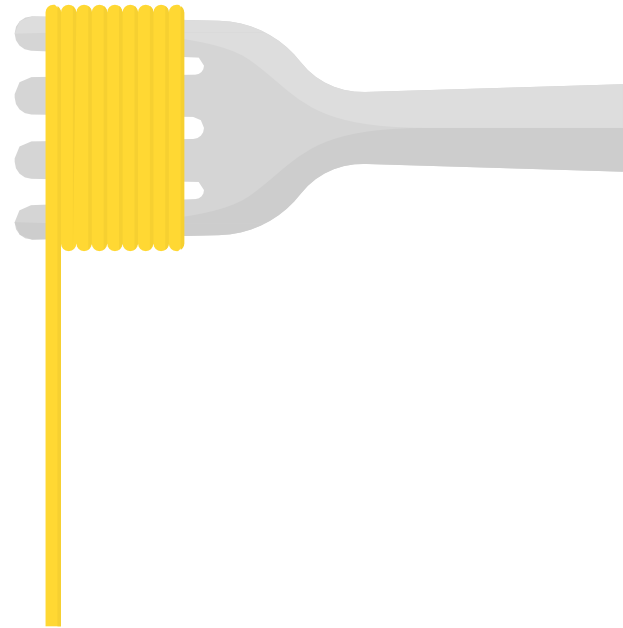
- 500 g of spaghetti; salt, pepper;
- 100 g of smoked bacon;
- 4 cloves of garlic;
- 5 eggs (you will need 3 yolks and 2 whole eggs);
- 50 g of grated Parmesan cheese, plus a little more for serving.

How to prepare?

1. Boil a large pot of water, salt well, and start cooking the spaghetti. Cook them about 2-3 minutes less than the instructions on the package indicate.
2. While the spaghetti is boiling, chop the bacon. Heat a large deep skillet (or pot) and fry the bacon (if the bacon is very fatty, drain off some of the fat after it has crisped to leave about 3 tablespoons. If the bacon is lean, you might need to add a couple of tablespoons of olive oil while frying). Near the end of frying, add the garlic and fry until fragrant.
3. In a bowl, whisk together 3 egg yolks and 2 whole eggs, then mix this mixture with the Parmesan cheese. Add crushed black pepper.

RECIPES

4. Drain the spaghetti just before it's fully cooked, saving about 1 cup of the pasta cooking water. Transfer the pasta to the skillet with the bacon, add about half a cup of the pasta water. Fry, stirring, for about 1.5-2 minutes, until the water has completely evaporated and the pasta finishes cooking to the right consistency. Remove from the heat, and pour the egg mixture into the skillet. Stir vigorously, allowing the eggs to cook from the residual heat. Serve immediately, optionally garnished with chopped parsley and more Parmesan cheese.



DAIRY - ONCE PER DAY, MOSTLY YOGHURT AND CHEESE

Milk and its products contain all the essential nutrients necessary for the development of a young organism and for maintaining the normal physiological state of an adult body: proteins, fats, carbohydrates (milk sugar), minerals, organic acids, vitamins, and enzymes. The body very easily absorbs the main components of milk (proteins, fats, and carbohydrates). Calcium is particularly well absorbed from milk and its products.

Milk and dairy products are a source of animal-based proteins. Milk proteins are very beneficial and are digested better than meat and fish proteins. Milk proteins are biologically very valuable because they contain 20 amino acids that are vital for the body. Especially important are the essential amino acids, which the body cannot synthesize and must be obtained from food. Milk proteins are not homogeneous; they consist of milk casein and whey proteins (serum protein). In older age, when enzyme activity is reduced, casein is harder to break down and digest. During fermentation, casein is broken down, making products like sour milk or cottage cheese easier to digest. The so-called whey proteins - albumins, immunoglobulins, which are the healthiest, pass into the whey. Goat's milk contains more albumin, making it significantly easier to digest. Whey contains about 10-15% immunoglobulins, from 5-10% albumins. A recommended whey product is Ricotta cheese.

DAIRY - ONCE PER DAY, MOSTLY YOGHURT AND CHEESE

Key Properties of Whey Proteins:

1. Repair of muscle tissue after physical exertion, prevention of atrophy.
2. Providing a feeling of fullness, aiding in weight management.
3. Prevention and treatment of cardiovascular diseases.
4. Anticancer effect.
5. Hypoallergenic food.
6. Supporting health in old age (anti-aging).
7. Destruction of pathogenic microbes (immunoglobulins in whey not only modulate immunity but also destroy microbes).

Milk fats are considered among the most valuable fats in terms of nutritional and biological value. They provide the body with a significant amount of energy. Milk fats are complete, containing a wide range of fatty acids, including essential ones that the body cannot synthesize.

Milk carbohydrates consist of milk sugar, lactose, which is found only in milk. When lactose enters the intestine, it normalizes the gut microbiota. Lactose is also important because it stimulates the nervous system and serves as a preventive measure against cardiovascular diseases. Some people are lactose intolerant because their body lacks the enzyme lactase or it is not very active.

DAIRY - ONCE PER DAY, MOSTLY YOGHURT AND CHEESE

The most common signs of lactose intolerance include abdominal pain, cramping, bloating, or diarrhea. This enzyme deficiency can be congenital or develop after various intestinal diseases. The older a person gets, the more likely they are to become lactose intolerant.

Fermented Dairy Products: Fermented milk is made by adding lactic acid bacteria to sweet milk. Milk protein is partially broken down, so the stomach doesn't need to process it as it would regular milk. Fermented dairy products are absorbed better and faster than plain milk. Fermented dairy products contain a lot of homogeneous bacteria. Thus, fermented dairy products act like bacterial cultures that can slow down or even stop the activity of putrefactive bacteria in the intestine. These products improve gastric secretion, intestinal function, help restore and regulate intestinal microbiota, and inhibit putrefaction processes.

Dairy products are an excellent source of proteins, minerals (such as calcium, phosphorus, etc.), and vitamins. Fermented dairy products are associated with numerous health benefits because they contain live microorganisms that can improve the balance of our gut microbiota.

It is **recommended** to include fermented dairy products (kefir, sour milk, natural yogurt, etc.) and whey products (Ricotta cheese) in your diet.

RED MEAT SHOULD ONLY FORM PART OF THE MEAL

Meat (livestock meat, poultry, and wildlife meat) is one of the most valuable food products. It is rich in all the essential nutrients needed by the human body: essential amino acids, B vitamins, minerals, polyunsaturated fatty acids, and micro and macro elements.

80% of meat consists of proteins - both complete and incomplete (collagen, elastin). About 90% of the proteins in meat are complete, as they contain all essential amino acids. Animal-derived proteins are absorbed better by the human body than plant-derived proteins, hence humans need half as much meat protein as plant protein to get the same amount. Meat proteins are absorbed at a rate of 96-98%. These proteins supply the body with essential amino acids necessary not only for maintaining muscle mass but also for the normal function of the immune system.

There are very few carbohydrates in meat - about 1%. Glycogen - a polysaccharide that animals store in muscles and liver, is also known as animal starch.

Meat typically contains about 10-40% fat. Dietary fats are one of the main sources of energy. The biological value of fats depends on their content of essential polyunsaturated fatty acids (Linoleic, Linolenic, Eicosanoids).

RED MEAT SHOULD ONLY FORM PART OF THE MEAL

Fats enhance the flavor of meat and contain vitamins: E, D, and K. Fats help these vitamins to be better absorbed during digestion. A human's daily diet should include at least 50 g of animal fats.

Meat is one of the sources of B vitamins. The most important is B12, which is abundant in beef. During boiling, a third of the vitamins transfer into the water. When boiling, 15-40% of vitamins B1 and B2 are lost, 40-50% when frying, 30-60% when stewing, and 50-70% when canning.

Processed red meat (ham, sausages, bacon, salami, etc.) is treated (salted, smoked, cured) using chemical preservatives and additives to improve its shelf life and/or flavor. In recent decades, the consumption of red meat has increased worldwide, especially in developing countries. At the same time, there is growing evidence that high consumption of red meat, especially processed, may be associated with an increased risk of chronic diseases such as diabetes, coronary heart disease, heart failure, stroke, and cancer morbidity and mortality.

Red meat production is harmful to the environment. By moderately consuming red meat and processed meat products, we contribute to the sustainability of food production and a more eco-friendly environment.

RED MEAT SHOULD ONLY FORM PART OF THE MEAL

Scientists have calculated that livestock farms account for about 20% of all greenhouse gases causing the greenhouse effect.

It is recommended:

TO CONSUME RED MEAT IN MODERATION, AS PART OF STEWS AND OTHER RECIPES.

Processed meat should be consumed in small amounts. Excessive consumption of animal fats is not healthy. Therefore, small quantities of meat, lean meat whenever possible, and as part of a dish based on grains and vegetables are recommended.



FISH AND EGGS

Fish is a highly digestible, protein-rich food. Fish proteins are considered complete because they contain all essential amino acids. Fish are divided into two major groups - fatty and lean. Fish with white flesh are usually lean and valued as a source of protein. Their meat is easily digestible, making these fish an excellent choice for dinner. Fatty fish are typically marine and are valued for their omega-3 fatty acids, which are not found in such high amounts elsewhere. Fatty fish are rich in fat-soluble vitamins and minerals. Lithuanian residents consume too little fish. If we were to get enough omega-3 fatty acids, it would **reduce the risk of atherosclerosis, lower cholesterol levels in the blood**, and thus, decrease morbidity.

Shellfish, shrimps, crabs, and lobsters are valued for their high protein content. Squid is very high in protein. Raw oysters are rich in proteins, but processed ones have half the amount of proteins due to heat treatment. Valuable fish oils are obtained from the livers of fish (mainly cod).

Fish is an important and natural source of fat-soluble vitamins A and D. The most significant sources are haddock, herring, salmon, sardines, mollusks, and raw oysters. Fish and seafood are not only a source of vitamins but also of minerals. They are rich in calcium, phosphorus, potassium, and trace elements such as fluorine, copper, zinc, etc.

Marine fish are one of the main sources of iodine and fluorine. It is proven that seafood is an excellent preventive measure against disorders caused by iodine deficiency.

FISH AND EGGS

Eggs are a nutritious and satiating food product. The human body absorbs 97-98% of the nutrients from a soft-boiled egg. The proteins in eggs, their quantity, and quality in the egg white and yolk differ. They are exceptionally valuable because the ratio of essential amino acids they contain is particularly suitable for the human body. Soft-boiled eggs are better absorbed by the body than raw ones because compounds that reduce absorption break down at a temperature of 80°C.

The yolk contains about 1% minerals, i.e., twice as much as the egg white. The yolk is rich in phosphorus, sulfur, calcium, while the egg white has a lot of sodium, sulfur, chlorine, potassium. Eggs, especially the yolk, are rich in vitamins A, E, D, thiamine, and riboflavin.

Eggs contain about 12% lipids - roughly the same amount as proteins, so the protein-to-fat ratio is ideal - 1:1

Eggs have a relatively high cholesterol content, which means that people who eat many eggs may have an increased risk of atherosclerosis.

RECIPES

RISOTTO WITH COD

Ingredients:

- 2 tablespoons of butter + 1 tablespoon of olive oil
- 1 small onion
- 3/4 cup of risotto rice
- A pinch of saffron
- 120ml of white wine
- About 750ml of chicken or vegetable stock (homemade really makes a difference!)
- 3-4 cod (or any other white fish) fillets
- 1 tomato, sliced into thin strips
- A pinch of oregano
- Fresh basil leaves
- Freshly ground black pepper

How to prepare?

1. Heat butter and oil in a skillet or a pot with a thick bottom, add onions and fry while stirring until they become translucent, soft but not browned. Add the rice and continue to fry while stirring for a few minutes.
2. Add the saffron (you can soak the saffron in a few tablespoons of warm water beforehand to release its color, and then pour it into the pot along with the coloured water).

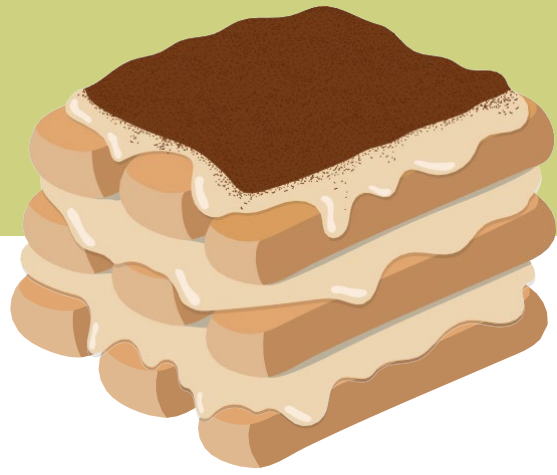
RECIPES

3. Pour in the wine and cook while stirring until the liquid has completely evaporated. Then add the stock little by little, continuing to cook over medium heat while stirring. Each time the liquid evaporates, add the next portion of stock. In about 15-17 minutes, the risotto should be thick and almost the right softness.
4. If your stock is traditionally salty, the risotto should have the right flavor, but if the stock is unsalted, season with salt to taste and stir well.
5. Place the fish fillets on top of the risotto, sprinkle with a bit of salt and oregano, place tomato strips on the fillets, cover the pot (or skillet) with a lid and simmer on low heat for about 5-7 minutes until the fish is cooked through.
6. When serving on a plate, place the fish on top of a bed of risotto, add a few slices of tomatoes on top, and sprinkle with fresh basil and crushed black pepper.

SWEETS, PIES AND DAIRY DESSERTS ARE ONLY FOR SPECIAL OCCASIONS

All concentrated forms of sugar - white sugar, brown sugar, glucose, honey, and syrup are rapidly dissolving carbohydrates that quickly release sugar and sharply increase blood sugar levels. If at that time the body does not need such an amount of sugar, it is stored as fat. Most manufactured concentrated sugar products lack the vitamins and minerals found in naturally grown fruits. More than 90 percent of vitamins and minerals are lost in white sugar. Without the necessary amount of vitamins and minerals, the body cannot function efficiently, metabolism becomes inefficient, we feel less energetic, and start having weight control problems.

RECIPES



TIRAMISU

Ingredients:

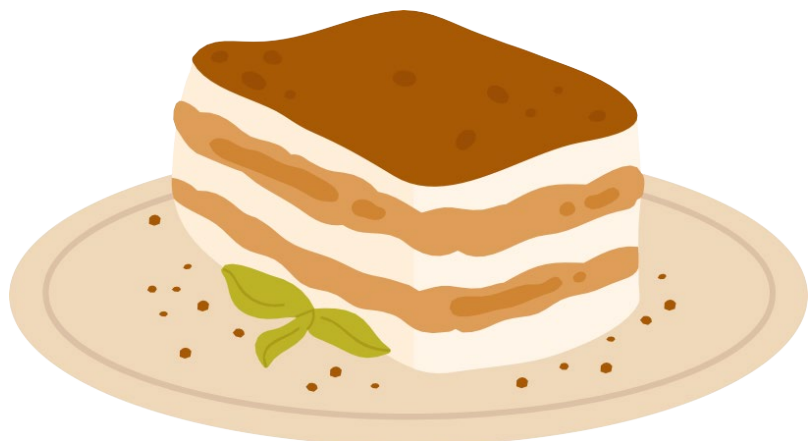
- 350 ml of very strong brewed coffee or espresso
- 4 egg yolks + 2 whites
- 25 ml Amaretto liqueur
- 100 g powdered sugar
- 500 g mascarpone
- 300 g long cookies (ladyfingers)
- About 3 tablespoons of cocoa

How to prepare?

1. Pour very hot water over the eggs (this procedure is necessary because we will be using eggs that are not thermally processed).
2. Separate the egg whites and yolks. Brew the coffee and let it cool.
3. Beat the egg yolks with half the amount of powdered sugar until you get a very fluffy light creamy consistency. Beat for about 7 minutes: first in a bowl placed in a pot with simmering water so that the steam heats the bottom of the bowl with the eggs, and then, once the mixture warms up, you can continue beating with a mixer).

RECIPES

4. Gradually pour in the liqueur while continuously beating the yolk mixture. Finally, add the mascarpone in parts - about 3 tablespoons at a time, continuously beating, but for a shorter time than when adding the liqueur. Overbeating can turn the cream into butter, but we need the cream to be fluffy, homogeneous, and thick.
5. In a separate bowl, beat the egg whites with a pinch of salt until they foam. Then gradually add the remaining powdered sugar and keep beating until you get stiff peaks. Very carefully fold the egg white mixture into the mascarpone cream.
6. Briefly dip half of the cookies into the coffee and arrange them at the bottom of the dish in which you will serve the dessert. Sprinkle them with cocoa, then spread and smooth half of the mascarpone cream on top. Then place another layer of coffee-dipped cookies, sprinkle with cocoa, and spread the remaining cream. Place the prepared dessert in the refrigerator for at least 3 hours, or overnight. Before serving, sprinkle the top with cocoa.



WATER IS THE MOST IMPORTANT DRINK

Although not a nutrient, water is crucial for maintaining bodily functions and health. It helps the body absorb nutrients, transports essential nutrients to tissues and organs, and removes toxic metabolic waste products. Water maintains proper blood volume and helps regulate body temperature. About a third of the water in the human body is inside the cells. If they lack water, then they struggle to absorb amino acids and other substances needed for metabolic processes, during which fats are burned. More than a third of the water is used in reactions occurring in muscle cells, another third is in the blood vessels, and the remaining third accumulates between cells and maintains tissue elasticity. The loss of intercellular water (notably rapid with excessive sweating) is immediately noticeable on the face: wrinkles become more pronounced, the skin becomes flabby, and one gets thirsty.

If one eats unsalted food and consumes plenty of fruits, vegetables, or unprocessed food, it is advisable to drink up to two liters of water a day to compensate for water lost through sweat or excretions.

Thirst is a sign of water deficiency in the body, but it is felt much later than the body needs water. Therefore, it is essential to drink water before feeling thirsty. In older people, the sense of thirst is not as acute, so elderly individuals should regularly drink 2-3 liters of water even if they do not feel thirsty.

PHYSICAL ACTIVITY DAILY IS AS IMPORTANT AS THE DIET

Regular physical activity is undoubtedly one of the most robust guarantees of a long and healthy life (Rebelo-Marques et al., 2018; Skurvydas, 2020). For individuals older than 65 years, to maintain health, it is recommended to engage in physical activity for at least 300 minutes per week (3/4 of this time should be at moderate intensity, where the heart rate reaches about 105-115 beats per minute; 1/4 of physical activity should be performed at high intensity, where for people of that age group, the heart rate reaches about 125-135 beats per minute) (Bull et al., 2020). It is also necessary to perform strength training exercises twice a week using 70-80 percent weights (select 4-10 exercises to train the strength of the legs, arms, and torso muscles; initially, one set per exercise, consisting of 10-15 repetitions, will suffice; with about 3-minute rest intervals between sets).



PHYSICAL ACTIVITY DAILY IS AS IMPORTANT AS THE DIET

Enhancing the body's aerobic capacity (increasing maximum oxygen consumption, MOC, or slowing its decline with age) is crucial. MOC improves best through interval training, i.e., alternating between high and moderate-intensity work. For example, 4 minutes of briskly climbing a slope, followed by 4 minutes of walking at a comfortable pace, then again a brisk pace for 4 minutes. Ideally, perform about 4 series of high-intensity work and 4 series of moderate intensity. About 2-3 such MOC training sessions are needed per week, but the training should not extend beyond 3-4 weeks. Within 3-4 weeks, MOC will improve by about 5-15 percent, there will be an increase in the number of mitochondria in the heart and skeletal muscles, a reduction in body inflammation, an increase in insulin sensitivity, a decrease in oxidative stress in cells, an increase in heart's systolic volume, improvement in vascular elasticity, and many other body functions. Thus, interval training of high-moderate intensity can rejuvenate the heart and skeletal muscles by several years.

OLDWAYS PYRAMID

The Oldways Pyramid is based on plant foods (vegetables, fruits, grains, beans, legumes), includes fish and other seafood; small portions of dairy, poultry, and eggs; even smaller portions of meat and sweets. It emphasizes moderate consumption of red wine, regular physical activity, and social interaction (socialization).

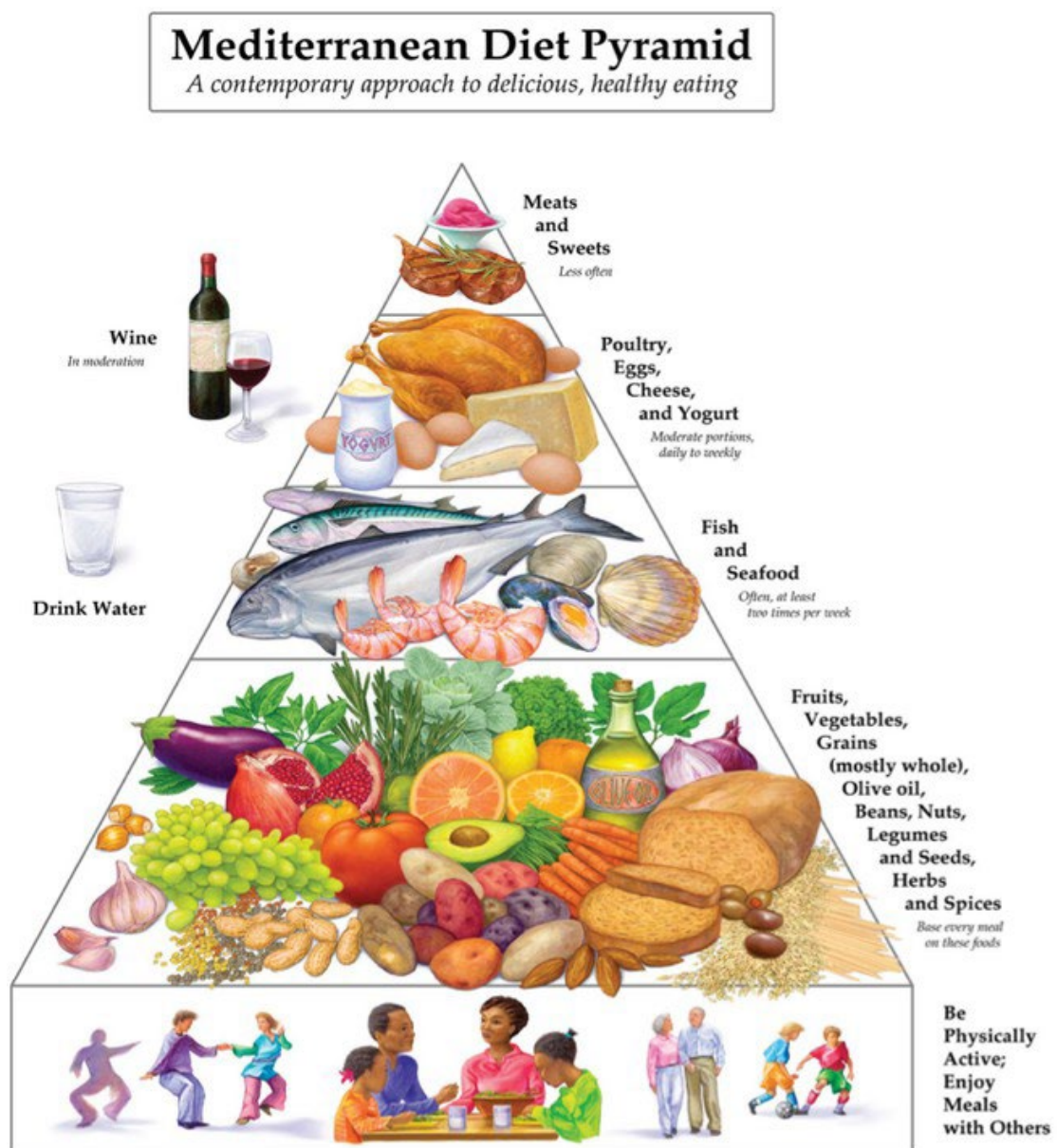


Illustration by George Middleton

FUNDACION DIETA MEDITERRANEA DIET PYRAMID

The **Fundacion Dieta Mediterranea** developed its own diet pyramid. It is based on the consumption of whole grain carbohydrate-rich foods (bread, pasta) as well as fruits and vegetables. It advocates that half of the fruits and vegetables should be raw. Olive oil is the primary source of fats and recommends consuming these fats with every meal. Plant-based protein sources (nuts and seeds), low-sodium spices (garlic, onions, herbs), as well as dairy products should be consumed daily. Lean animal proteins (white meat, seafood, eggs, legumes, and potatoes) should be consumed weekly. Alcohol and sweets should be consumed in moderation. It emphasizes the importance of focusing on food preparation. Encourages physical activity, social interaction, and highlights the importance of rest.

FUNDACION DIETA MEDITERRANEA DIET PYRAMID

Mediterranean Diet Pyramid: a lifestyle for today

Guidelines for Adult population

Serving size based on frugality and local habits



Wine in moderation and respecting social beliefs



2010 edition

s = Serving

LITERATURE

1. Seven Countries Study | The first study to relate cardiovascular disease. The Seven Countries Study (SCS for short) is the first major study to look at dietary composition patterns lifestyle as risk factors for cardiovascular disease, over multiple years and past extended periods of time, even the first study to relate diet with cardiovascular disease. <http://www.sevencountriesstudy.com/> (accessed August 14, 2016).
2. Keys AB. How to Eat Well and Stay Well the Mediterranean Way. 1st edition. Garden City, NY: Doubleday; 1975.
3. Kushi LH, Lenart EB, Willett WC. Health implications of Mediterranean diets in light of contemporary knowledge. 1. Plant foods and dairy products. *Am J Clin Nutr* 1995;61(6 Suppl):1407S-15S.
4. Kushi LH, Lenart EB, Willett WC. Health implications of Mediterranean diets in light of contemporary knowledge. 2. Meat, wine, fats, and oils. *Am J Clin Nutr* 1995;61(6 Suppl):1416S-27S.
5. Fung TT, Hu FB, McCullough ML, Newby PK, Willett WC, Holmes MD. Diet quality is associated with the risk of estrogen receptor-negative breast cancer in postmenopausal women. *J Nutr* 2006;136(2):466-72.
6. Fung TT, McCullough ML, Newby PK. et al. Diet-quality scores and plasma concentrations of markers of inflammation and endothelial dysfunction. *Am J Clin Nutr* 2005;82(1):163-73.
7. Samieri C, Sun Q, Townsend MK. et al. The association between dietary patterns at midlife and health in aging: An observational study. *Ann Intern Med* 2013;159(9):584- 91. doi:10.7326/0003-4819-159-9-201311050-00004.

LITERATURE

8. De Lorgeril M, Salen P, Martin JL, Monjaud I, Delaye J, Mamelle N. Mediterranean diet, traditional risk factors, and the rate of cardiovascular complications after myocardial infarction: Final report of the Lyon Diet Heart Study. *Circulation* 1999;99(6):779-85
9. Willett WC, Sacks F, Trichopoulos A. et al. Mediterranean diet pyramid: A cultural model for healthy eating. *Am J Clin Nutr* 1995;61(6 Suppl):1402S-6S.
10. Mediterranean Diet. Oldways. <http://oldwayspt.org/traditional-diets/mediterranean-diet> (accessed August 14, 2016).
11. Mediterranean Diet. Fund Dieta Mediterr. <http://dietamediterranea.com/en/> (accessed August 14, 2016).
12. Mediterranean diet-intangible heritage-Culture Sector-UNESCO. <http://www.unesco.org/culture/ich/en/RL/mediterranean-diet-00884> (accessed August 12, 2016).
13. Predimed.esHome. <http://www.predimed.es/> (accessed August 12, 2016).
14. Estruch R, Ros E, Salas-Salvadó J. et al. Primary prevention of cardiovascular disease with a Mediterranean diet. *N Engl J Med* 2013;368(14):1279-90. doi:10.1056/NEJMoa1200303.
15. Martínez-González MA, Estruch R, Corella D, Ros E, Salas-Salvadó J. Prevention of diabetes with Mediterranean diets. *Ann Intern Med* 2014;161(2):157-8. doi:10.7326/L14-5014-2.
16. PREDIMED PLUS. <http://predimedplus.com/> (accessed August 15, 2016).
17. Buckland G. Bacher Strona Majem. Obesity and the Mediterranean diet: A systematic review/j.1467-789X.2008.05.03.intervention studies. *Obes Rev* 2008;9(6):582-93, doi:10.11

LITERATURE

18. Esposito K, Kastorini C-M, Panagiotakos DB, Giugliano D. Mediterranean diet and weight loss: Meta-analysis of randomized controlled trials. *Metab Syndr Relat Disord* 2010;9(1):1-12. doi:10.1089/met.2010.0031.0
19. Gomez-Huelgas R, Jansen-Chaparro S, Baca-Osorio AJ, Mancera-Romero J, Tina-hones FJ, Bernal-López MR. Effects of a long-term lifestyle intervention program with Mediterranean diet and exercise for the management of patients with metabolic syndrome in a primary care setting. *Eur J Intern Med* 2015;26(5):317-23. doi:10.1016/j.ejim.2015.04.007.
20. Mancini JG, Filion KB, Atallah R, Eisenberg MJ. Systematic review of the Mediterranean diet for long-term weight loss. *Am J Med* 2016;129(4):407-415.e4. doi:10.1016/j.amjmed.2015.11.028.
21. Estruch R, Martínez-González MA, Corella D. et al. Effect of a high-fat Mediterranean diet on bodyweight and waist circumference: A prespecified secondary outcomes analysis of the PREDIMED randomised controlled trial. *Lancet Diabetes Endocrinol* June 2016;4(8):666-76. doi:10.1016/S2213-8587(16)30085-7.
22. Hardman RJ, Kennedy G, Macpherson H, Scholey AB, Pipingas A. Adherence to a Mediterranean-style diet and effects on cognition in adults: A qualitative evaluation and systematic review of longitudinal and prospective trials. *Front Nutr* 2016;3:22. doi:10.3389/fnut.2016.00022.
23. García-Calzón S, Martínez-González MA, Razquin C. et al. Mediterranean diet and telomere length in high cardiovascular risk subjects from the

LITERATURE

24. Mazzocchi A., Venter C., Maslin K., Agostoni C. The Role of Nutritional Aspects in Food Allergy: Prevention and Management. *Nutrients*. 2017;9:850. doi: 10.3390/nu9080850. [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
25. Santangelo C., Vari R., Scazzocchio B., De Sanctis P., Giovannini C., D'Archivio M., Masella R. Anti-inflammatory Activity of Extra Virgin Olive Oil Polyphenols: Which Role in the Prevention and Treatment of Immune-Mediated Inflammatory Diseases? *Endocr. Metab. Immune Disord. Drug Targets*. 2018;18:36–50. doi: 10.2174/1871530317666171114114321. [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
26. [Scholar](#)
27. Olivenöl. [(accessed on 29 November 2019)]; Available online: https://fddb.info/db/de/lebensmittel/naturprodukt_olivenoel/index.html
28. Olive Oil Nutrition Facts. [(accessed on 29 November 2019)]; Available online: <https://www.nutrition-and-you.com/olive-oil.html>
29. Olivenöl. [(accessed on 29 November 2019)]; Available online: <http://www.ernaehrung.de/lebensmittel/de/Q120000/Olivenoel.php>
30. Pedan V., Popp M., Rohn S., Nyfeler M., Bongartz A. Characterization of Phenolic Compounds and Their Contribution to Sensory Properties of Olive Oil. *Molecules*. 2019;24:2401. doi: 10.3390/molecules24112041. [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
31. Rizwan S., Benincasa C., Mehmood K., Anjum S., Mehmood Z., Alizai G.H., Azam M., Perri E., Sajjad A. Fatty Acids and Phenolic Profiles of Extravirgin Olive Oils from Selected Italian Cultivars Introduced in Southwestern Province of Pakistan. *J. Oleo Sci.* 2019;68:33–43. doi: 10.5650/jos.ess18150. [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

LITERATURE

32. Efsa Panel on Dietetic Products, Nutrition And Allergies (NDA) Scientific opinion on the substantiation of health claims related to polyphenols in olive and protection of LDL particles from oxidative damage (Id 1333, 1638, 1639, 1696, 2865), maintenance of normal blood HDL cholesterol concentrations (Id 1639), maintenance of normal blood pressure (Id 3781), “anti-inflammatory properties” (id 1882), “contributes to the upper respiratory tract health” (Id 3467) pursuant to article 13(1) of regulation (ec) no 1924/2006. EFSA J. 2011;9:2033. [[Google Scholar](#)]
33. Carnevale R., Loffredo L., Del Ben M., Angelico F., Nocella C., Petruccioli A., Bartimoccia S., Monticolo R., Cava E., Violi F. Extra virgin olive oil improves post-prandial glycemc and lipid profile in patients with impaired fasting glucose. Clin. Nutr. 2017;36:782–787. doi: 10.1016/j.clnu.2016.05.016. [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]